

IN THE CLAIMS:

Without prejudice, please cancel original claims 1 to 17 in the original application, and please add new claims 18 to 35 as follows:

18. (New) A method for generating a personal identification number (PIN) having a number of N decimal digits, to be used for money cards and other security-requiring devices, comprising:

generating the personal identification number from a binary number having L digits so that the personal identification number is randomly distributed over an available number domain.

19. (New) The method of claim 18, further comprising:

converting a first predefinable natural number n1 of digits of the binary number into a decimal number d1;

wherein:

the first predefinable natural number n1 of digits is selected so as to yield a natural number z1 such that a quotient $2^{n1}/(z1*9)$ is close to 1;

a first decimal digit of the personal identification number receives a value d1 modulo 9; and

N-1 further groups of a predefinable number n2 of digits of the binary number are converted each time into N-1 decimal numbers d2 through dN, the predefinable number n2 being selected so as to yield a natural number z2 such that a quotient $2^{n2}/(z2*10)$ is close to 1, to satisfy a condition of $0 \leq 2^{n2} \text{ modulo } 10 < 3$, and decimal digits 2 through N of the personal identification number receive values di modulo 10, i=2 through N.

20. (New) The method of claim 18, wherein n1 and $n2 \leq 16$ are predefined.

21. (New) The method of claim 18, wherein N=4 is selected.

22. (New) The method of claim 18, wherein the binary number has a length of L=16, and N=4 and $n1=n2=4$ are predefined.

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23. (New) The method of claim 18, wherein the binary number has a length $L=3*n3$, $n3$ groups of three digits of the binary number are converted into $n3$ decimal digits to generate $n3$ digits of the personal identification number, and $n3$ is a natural number.

24. (New) The method of claim 18, wherein the binary number is fully converted into a decimal number to generate the personal identification number, and if necessary, a correction value is added to a resultant decimal number so that a first digit of the decimal number becomes unequal to zero, digits of the resultant decimal number forming the decimal digits of the personal identification number.

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25. (New) The method of claim 24, wherein the binary number has a length L of 13, the resultant decimal number has four digits, and a preset value greater than 999 and smaller than 1807 is added to the resultant decimal number.

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26. (New) The method of claim 25, wherein a set of numbers 0 through 8191 is allocated to $n5$ subsets $M1, \dots, Mn5$, and a preset value d_i is added to the resultant decimal number if it is an element of the set M_i , where $999 < d1 < d2 < \dots < dn5 < 1809$ and $n5$ is a natural number.

27. (New) The method of claim 24, wherein the binary number has a length L of 16, the resultant decimal number has five digits, and a preset value greater than 9999 and smaller than 34465 is added to the resultant decimal number.

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28. (New) The method of claim 27, wherein a set of numbers 0 through 65535 is allocated to $n5$ subsets $M1, \dots, Mn5$, and a preset value d_i is added to the resultant decimal number if it is an element of the set M_i , where $9999 < d1 < d2 < \dots < dn5 < 34465$ and $n5$ is a natural number.

29. (New) The method of claim 18, wherein:

a first digit of the personal identification number is generated by:

generating a pseudo-random number composed of up to 36

hexadecimal digits from a binary number of a length L ;

converting each hexadecimal digit of the pseudo-random number using one different one out of 36 possible different mathematical mappings of the 36 hexadecimal digits into digits 1 through 9, into another digit of the digits 1 through 9, forming a generated number;

linking up to 36 decimal digits of a generated number in a mathematical operating to form a decimal digit that is unequal to zero and that represents a first digit of the personal identification number, to average out a probability of a particular personal identification digit occurring; and a second digit and each following digit of the personal identification number is generated by:

generating another pseudo-random number composed of up to 210 hexadecimal digits from the binary number of length L;

converting each hexadecimal digit of the another pseudo-random number into one decimal digit using each time one different one out of a 210 possible mathematical mappings of hexadecimal digits into decimal digits; and

linking up to 210 decimal digits of a generated number in a mathematical operation to form a decimal digit representing a particular digit of the personal identification number, to average out the probability of the particular personal identification digit occurring.

30. (New) The method of claim 29, wherein the first digit of the personal identification number is generated in that the up to 36 digits are linked using a group operation of any arbitrary mathematical group of an order 9, and the second digit and each following digit of the personal identification number are generated in that the up to 210 digits are linked using a group operation of any arbitrary mathematical group of an order 10.

31. (New) The method of claim 30, wherein an additive group of integers modulo 10 are used to link the up to 210 digits.

32. (New) The method of claim 30, wherein a multiplicative group of integers modulo 11 are used to link the up to 210 digits.

33. (New) The method of claim 30, wherein a group of symmetric mappings of at least one of a regular pentagon and a dihedral group is used to link the up to 210 digits, each ten symmetric mappings of the group of symmetric mappings of the at least one of the regular pentagon and the dihedral group being assigned a different decimal digit.

34. (New) The method of claim 33, wherein a digit 0 is assigned to an identity mapping,